

Open House at Battelle

...50 years of Marine Research in Duxbury

Battelle invites all of you to share in its heritage and its visions as we move into the 21st century and the next 50 years with a goal of a clean and safe environment for all, a dedication to the ideals of service to the community inspired by Dr. Clapp and Gordon Battelle, and a curiosity to learn more about the world we inhabit.

On Saturday, Sept. 28, the Duxbury community will have a unique opportunity to visit Battelle's research facility on Duxbury Bay to join in celebrating 50 years of marine research in Duxbury. Tours and presentations

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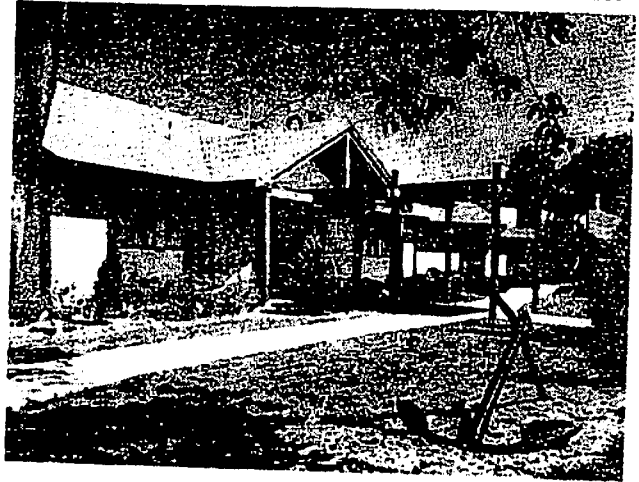
will be conducted by Battelle scientists from 9 am until noon. A picnic for visitors will be provided at noon on the lawn overlooking the Bay followed by a keynote speaker by Dr. Jerry Schubel, president of the New England Aquarium. The South Shore Bay Band will entertain and the day's activities will end at 3.

The tour of Battelle will be a passage through time as visitors view the work of Dr. William Clapp, who established Duxbury's first marine research facility 50 years ago, and move on to Battelle's latest state-of-the-art laboratories in use today.

The beginnings of the lab in the early 30's and the work of Bill Clapp are well known by many early residents of the South Shore and internationally in the scientific community. The history of how he became interested in shipworms and marine borers (salt water organisms) and the destruction they cause to piers and bridges is a fascinating story and marks the starting point for Clapp labs. Bill Clapp and his associates had been collecting samples of these organisms around the world and were doing extensive tests on protective materials and methods of application when a sudden and severe attack of the shipworm, *Teredo*, occurred in Plymouth Harbor in the 1930s. A group of concerned businessmen organized the New England Piling Committee with Clapp as their consultant. Determined to prove that his scientific work had practical value, Bill Clapp offered his advice freely. He was so much in demand that he had to hire additional help to do the testing work. The lab operated on a "shoestring" for 30 years, never sending a bill but relying on contributions from companies who felt his work was worthwhile. This non-profit policy was maintained through the years. The results from the scientific freedom thus established was the development of the reputation for unbiased opinions and the source of information unattainable elsewhere. The laboratory never advertised but its reputation spread by word of mouth and calls and visitors came from all parts of the world. The Wm. F. Clapp Laboratories was officially established in the 30s and, to insure continuing operation, a non-profit corporation was finally formed in 1946.

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After Dr. Clapp's death in 1951, Pete Richards became president and director of the laboratories. It was during this time and just before Pete died in 1963 that a large volume was published with the collaboration of Clapp Labs, the Office of Naval Research, and the Library of Congress. This volume, *Marine Borers: An annotated Bibliography* has become one of the most



William F. Clapp Laboratories, Inc, Battelle Memorial Institute.

important reference sources for researchers who deal with marine borers and their control. After Pete Richards died, his wife, Beatrice, also a biologist, continued the work of Clapp Labs as director. It was in 1965 that the Wm. F. Clapp Laboratories Inc. became associated with Battelle Memorial Institute of Columbus, OH., the oldest and largest independent research organization in the world. Today, BMI has an annual business volume of about \$1 billion and a worldwide staff of 8,000 scientists, engineers and other specialists who conduct more than 4,900 projects each year.

The Battelle/Duxbury laboratory has gone through many changes during the past 31 years. It now consists of a multi disciplinary team of scientists, engineers and technical specialists dedicated to finding the solutions to environmental and marine problems. New buildings have been added and research facilities updated to now include wet chemistry and sample preparation laboratories and sophisticated analytical instruments designed to detect trace amounts of metals and organic contaminants in water, sediment and tissue samples.

One specialty area that has been cultivated at Battelle/Duxbury is the study of the environmental fate and behavior of petroleum and petroleum products. Scientists travel from Duxbury around the world collecting samples for analysis, from the oil soaked coastline of Prince William Sound in Alaska to the oil rigs in the Sea of Thailand. Battelle clients include government agencies such as the Army Corps of Engineers and EPA, state agencies, oil and gas companies, utilities, and private industry. Battelle's scientists have assisted government and industrial clients in determining the fate and effects of petroleum and related chemical substances released into the environment by drilling fluids and cuttings, produced water from offshore production facilities, ballast water from tankers, effluent from refineries, and petroleum from accidental spills. Working for the Minerals Management Service, Battelle has performed baseline studies of petroleum hydrocarbons on Georges Bank, in the Beaufort Sea, offshore Southern California, and the continental shelf slope and rise of the U.S. Atlantic coast. The long-term impact of oil spills and productions activities have also been extensively studied in the Gulf of Mexico and the Gulf of Thailand. While studies are conducted in such far reaching areas as the United Arab Emirates they also are done closer to home in Boston Harbor where Battelle developed the design for the MWRA outfall monitoring program.

Battelle played a major role in the wake of the *Exxon Valdez* oil spill incident in developing state-of-the-art,

proven methods for the most reliable analysis of petroleum, combustion and coal related products in soils/sediments, waters, and biological tissues.



Battelle scientists in the field monitoring effects of oil/gas exploration activities.

A recent Battelle contract involves a 4-year, \$20 million project based in Sardinia. For 10 weeks this summer, 21 Italian scientists have trained at Battelle in preparation for the work they will be doing at the newly established Environmental Research Center in Sardinia, Italy. Battelle scientists will supervise the marine and atmospheric studies which will be carried on at this center.

Over the years, Battelle/Duxbury has sought to carry out the philanthropic wishes of its founder in Columbus, Ohio, Gordon Battelle, and also to carry on the scientific work of Bill Clapp. Battelle has sought to assist the community by its distributions to educational and social service organizations; by its support of the arts and sciences; running science fairs, providing space for the children who attend Backyard Bay each summer, as well as by sponsoring the annual Duxbury Beach Sweep. Battelle as an organization encourages its staff to volunteer on town committees and boards and to give back to the community in which it resides.

The tradition of Dr. William Clapp continues today at Battelle/Duxbury. Work with marine borers and shipworms is ongoing although the bathtubs once used for his testing panels have been replaced by high-tech structures such as a 4,000 L. flume tank which offers complete instruments providing automated analyses and computers grace every office and lab. The creative spirit of Dr. Clapp is thriving at Battelle and hopefully will flourish and continue into the next century as his legacy and Battelle's dedicated scientists focus on protecting our environment for future generations.